

4. *Grabhamia varipalpus* Coq. from British Columbia.
5. *Grabhamia curriei* Coq. from California.
6. *Pneumaculex signifer* Coq. from Virginia.
7. *Stegomyia fasciata* Fab. from Texas.
8. *Feltidia cyanescens* Coq. from Texas.
9. *Feltidia signipennis* Coq. from Mexico.
10. *Theobaldia incidens* Thom. from British Colombia.
11. *Melanoconion atratus* Theob. from Jamaica.
12. *Culex tarsalis* Coq. from California.

NEW NEMATOCEROUS DIPTERA FROM NORTH AMERICA.

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The present paper is founded primarily on collections made during the summer of 1903 by Messrs. R. P. Currie, H. G. Dyar and A. N. Caudell in British Columbia, and by Mr. H. S. Barber, chiefly in northern California. Messrs. Currie and Barber paid especial attention to the Diptera and succeeded in obtaining many rare and interesting specimens. Only those belonging to the section Nemocera have as yet been studied and the descriptions of the new species are appended herewith. To these are added descriptions of several species received from various sources, bringing the number of new species described in this paper up to 47.

Dicranomyia signipennis, new species.

Distinguished from the described species by the spotted wings in connection with the short auxiliary vein, the apex of which is very near the base of the second vein. Brown, the humeri, scutellum, a spot in front of it, the genitalia, halteres and legs, yellow, a black band before apex of each femur, apices of tarsi brown. Antennae reaching nearly to base of wings, joints three to thirteen of nearly an equal length, the last three or four of these slightly longer than wide. Thorax opaque, grayish pruinose, mesonotum marked with three blackish vittæ. Hypopygium of male rather small. Halteres not unusually long. Wings glabrous indistinctly mottled with pale gray and whitish hyaline, stigma brown, a brown cloud at apex of auxiliary vein, another at forking of second and third veins, one on vein at base of discal, extending over small and hind crossveins, a fourth on veins at apex of discal cell; marginal crossvein close to apex of first vein, auxiliary crossvein close to apex of the auxiliary vein, first section of second vein one and one half times as long as first section of the third, base of discal cell far beyond base of the submarginal, discal cell closed. Length 7 mm.

Eureka, Cal. A specimen of each sex collected in coition June 5 by Mr. H. S. Barber. Type No. 8343, U. S. National Museum.

***Limnobia maculicosta*, new species.**

Marginal crossvein far before apex of first vein, wings spotted, femora without brown bands. Head and its members brown, the labella yellow, joints of antennæ except the second longer than broad, the eighth over twice as long as broad. Thorax somewhat polished, brown, varied with yellow. Abdomen brown, a band near base of second segment, the extreme bases of the other segments, the genitalia and the broad bases of the segments of the venter, yellow. Legs brown, broad apices of the femora, both ends of the tibiæ and bases of the tarsi yellow. Wings hyaline, indistinctly mottled with pale gray and with four rather large, dark gray spots along the front margin — one at base of second vein, another at apex of auxiliary vein, a third on the marginal crossvein, the last one at apex of first vein; the first spot extends only to the auxiliary vein, the other three border the costa; auxiliary vein nearly reaches the base of the submarginal cell and apparently ends in the first vein, with the crossvein a short distance before its apex. Halteres brown, both ends yellow. Length 11 mm.

Kokanee Mt., British Columbia (altitude 8000 feet). A female specimen collected August 10 by Mr. R. P. Currie. Type No. 8344, U. S. National Museum.

***Limnobia bestigma*, new species.**

Near *tristigma* but with only two brown costal spots — one at apex of auxiliary vein, the other on the marginal crossvein. Head and its members brown, the third joint of antennæ and the labellæ yellow, joints of antennæ except the second longer than broad, the fifth and following joints over twice as long as broad. Thorax somewhat polished, yellowish, a median brown vitta on the anterior half, sides of scutellum also brown. Abdomen brown, a median vitta, the genitalia and venter yellow. Legs yellow, broad apex of each femur and tarsus brown, an indistinct brownish band at a considerable distance from the apex of each femur. Halteres elongated, yellow. Wings hyaline, a rather small brown cloud at apex of auxiliary vein and a slightly larger one on the marginal crossvein: the latter cloud is located nearly in the middle of the otherwise pale yellowish stigma; apex of auxiliary vein slightly beyond middle of first section of second vein, its termination and the crossvein as in the preceding species; marginal crossvein far before apex of first vein. Length 9 mm.

Bear Lake, British Columbia. A female specimen collected July 29 by Mr. R. P. Currie. Type No. 8345, U. S. National Museum.

***Rhypholophus divergens*, new species.**

Near *holotrichus*, but the sixth and seventh veins diverging toward their apices, etc. Black, the halteres, trochanters and bases of the femora, yellow, ovipositor of female also yellow. Antennæ of male reaching slightly beyond base of wings, the third joint as broad as long, the eighth and following joints somewhat longer than broad. Thorax densely gray pruinose, not vittate, its hairs and those of the abdomen yellowish; hypopygium rather small, the claspers terminate in a curved hook.

Wings hyaline, stigma pale brown, discal cell opens in the second posterior, sixth and seventh veins very strongly diverging toward their apices. Length 4 mm.

Kaslo (June 18 and 29, R. P. Currie); London Hill Mine, Bear Lake (altitude 7,000 feet, July 21, A. N. Caudell), and Kokanee Mt. (altitude 9,000 feet, on snow August 10, R. P. Currie), British Columbia. One male and four females. Type No. 8346, U. S. National Museum.

***Molophilus nitidus*, new species.**

Base of first submarginal cell opposite base of discal cell, body polished. Black, a streak at each humerus and knobs of the halteres yellow, genitalia yellowish brown. Antennæ reaching base of second segment of abdomen, the third and succeeding joints longer than broad. Hairs of body chiefly brown; claspers consist of a pair of elongated, flattened projections tapering slightly to the apex, devoid of hooks and other processes. Wings grayish hyaline, marginal crossvein slightly beyond base of second submarginal cell, the latter opposite base of first posterior, base of third posterior cell noticeably nearer to base of first submarginal than to that of the second. Length 4 mm.

Fieldbrook, Cal. A male specimen collected May 18 by Mr. H. S. Barber. Type No. 8347, U. S. National Museum.

***Gnophomyia aperta*, new species.**

Discal cell open into the second posterior, hind crossvein at or before base of discal cell. Black, the halteres, trochanters and bases of femora yellow. Antennæ reaches base of third segment of abdomen, the third and following joints longer than broad. Thorax opaque, gray pruinose, mesonotum with a darker median vitta not reaching beyond the suture. Claspers short and robust, each with an apical horny hook. Wings grayish hyaline, apex of auxiliary vein opposite base of second submarginal cell, auxiliary crossvein subobsolete, about length of hind crossvein before apex of auxiliary vein. Length 4 mm.

Kaslo, British Columbia. Two males collected July 11 and 18 by Dr. H. G. Dyar. Type No. 8348, U. S. National Museum.

***Limnophila antennata*, new species.**

Near *quadrata* but the antennæ of the male reach base of sixth segment of the abdomen. Black, the halteres, genitalia coxæ, trochanters, femora and tibiæ except apices of the last two, yellow. Antennæ of male cylindrical but tapering to the apex, the third joint as long as the first two taken together, the following joints with a sparse verticil of short hairs near the middle of each. Head and thorax very thinly grayish pruinose. Wings grayish hyaline, stigma brownish, marginal crossvein near apex of first vein, first submarginal cell almost sessile, the second submarginal usually slightly longer than the first posterior cell, base of discal cell slightly nearer to base of wing than is that of the second submarginal, only four posterior cells, hind crossvein near middle of discal cell. Length 7 mm.

Kaslo, British Columbia. Three male specimens, two collected June 11 and July 11 by Dr. H. G. Dyar, the third collected June 22 by Mr. R. P. Currie. Type No. 8349, N. S. National Museum.

Tricyphona aperta, new species.

Near *calcar* but the discal cell is open in the fourth posterior, etc. Yellow, the head black, gray pruinose, the antennæ, palpi and tarsi brownish toward their apices. Wings pure hyaline, stigma obsolete, first submarginal cell longer than the second, base of third vein far beyond the small crossvein, petiole of second posterior cell longer than this cell, subequal to preceding section of the fourth vein. Length 6 mm.

Kaslo, British Columbia. One male and two females collected May 29 and June 10 by Dr. H. G. Dyar. Type No. 8350, U. S. National Museum.

Family CHIRONOMIDÆ.

TABLE OF NEW SPECIES OF CERATOPOGON.

- | | |
|---|---------------------|
| 1. Third vein connected with the first by a crossvein..... | 6 |
| Third vein wholly separated from the first, not connected by a crossvein, wings bare, unmarked, fourth joint of hind tarsi at most one half as long as the fifth, claws of tarsi equal or subequal in length | 2 |
| 2. Last tarsal joint not spined on the under side..... | 3 |
| Last joint fringed with two rows of large spines on nearly entire length of the under side. Black, the broad bases of antennæ, palpi, scutellum, knobs of halteres, first two pairs of tibiæ except their apices, and the tarsi except apices of the joints and the whole of the last one, yellowish. Body opaque, gray pruinose. Femora rather slender, front ones spined on the apical half of the under side, the middle femora not spined, hind ones bearing about five rather slender spines toward the apex of the under side; tarsal claws very long, a large tooth before base of each. Wings hyaline, third vein ends near six sevenths length of wing, apex of first vein before middle of the third, fourth vein forks slightly before the small crossvein. Length 3.5 mm..... | <i>setipes</i> .* |
| 3. Mesonotum polished and sometimes with gray pruinose vittæ..... | 4 |
| Mesonotum opaque, gray pruinose. Black, knobs of the halteres and the legs yellow, extreme apices of the femora, tibiæ and joints of tarsi brown, broad apices of hind femora and bases of their tibiæ also brown. Abdomen somewhat polished. Femora rather slender, the front ones slightly thickened and bearing three spines on the apical half of the under side, other femora without spines; tarsal claws rather large, not toothed. Wings hyaline, venation as in <i>setipes</i> . Length 2.5 mm..... | <i>pruinosus</i> .† |
| 4. Dorsum of thorax unmarked..... | 5 |

* Brownsville, Texas. A female specimen collected March 19 by Mr. C. H. T. Townsend. Type No. 8351, U. S. National Museum.

† Bear Lake, British Columbia. A female specimen collected July 20 by Mr. R. P. Currie. Type No. 8352, U. S. National Museum.

- Dorsum of thorax marked with a pair of whitish pruinose vittæ on slightly more than its anterior half, the sides, front angles and greater part of pleura thinly grayish pruinose. Black, bases of the joints of the tarsi yellowish. Abdomen somewhat polished. Femora rather slender, not spined. Wings hyaline, slightly tinged with yellowish in the marginal cell; third vein reaches three fourths length of wing, apex of first vein slightly before middle of the third, fourth vein forks nearly at the small crossvein. Length 2 mm.....*bivittatus*.*
5. Abdomen on basal half yellow, legs chiefly yellow. Black, the halteres, basal half of abdomen, genitalia and legs except knees, apices of tibiæ and whole of last tarsal joint, yellow, a brownish band near middle of hind tibiæ. Mesonotum highly polished. Femora slender, without spines. Wings hyaline, third vein nearly reaches three fourths length of wing, apex of first vein near middle of the third, fourth vein forks slightly before the small crossvein. Length 2 mm*flavoniger*.†
- Abdomen wholly black, legs chiefly black. Black, the basal half of the antennæ, the palpi, stems of halteres, a band before apex of each front femur, one near apex of first two pairs of tibiæ, and the tarsi, yellow. Body highly polished, thorax gibbous. Femora not spined, rather slender, the hind ones elongated and thickened toward the apices. Wings hyaline, venation as in *flavoniger* except that the apex of first vein is noticeably before middle of the third. Length 1.25 mm.....*gibber*.‡
6. Wings hairy, at least toward the apices.....14
Wings bare 7
7. With at most a small brown spot on either wing, situated on the small crossvein.. 9
With distinct brown markings on the wings..... 8
8. Yellow, a pair of widely separated vittæ on the mesonotum, a streak beneath each wing, the front, lateral and hind margins of the abdominal segments beyond the second, the knobs of the halteres, apices of hind femora and of their tibiæ, also the last joint of their tarsi, black. Antennæ nearly as long as the body, the latter highly polished. Femora rather slender, not spined, first joint of tarsi longer than the following three together, the third slightly shorter than the fourth, the latter less than half as long as the fifth, which bears a pair of stout blunt spines near the base, one of the claws of each tarsus is more than twice as long as the other, the former being unusually long. Wings hyaline, a small brown spot extends from apex of first vein over the small crossvein, a second somewhat larger brown spot reaches from apex of third vein over halfway across the first posterior cell; third vein reaches three fourths length of wing, apex of first vein near one fifth length of the third, fourth vein forks far beyond the crossvein. Length 2 mm.....*pictus*.§

* Eureka, Cal. Four females collected May 24 and June 6 by Mr. H. S. Barber. Type No. 8353, U. S. National Museum.

† Bear Lake, British Columbia. Two males collected. July 20 by Mr. R. P. Currie. Type No. 8354, U. S. National Museum.

‡ Cayamas, Cuba. A female specimen collected January 16 by Mr. E. A. Schwarz. Type No. 8355, U. S. National Museum.

§ Virginia. A female specimen collected June 16, by Mr. Theo. Pergande. Type No. 8356, U. S. National Museum.

Black, the first two joints of antennæ, face, halteres, first two pairs of coxæ and their femora except their apices, the apical half of their tibiæ except the extreme apices, all tarsi except the last two joints, and basal two thirds of the hind femora, yellow. Antennæ longer than the body, the latter is highly polished, and with a white pruinose vitta in middle of the pleura. Femora rather slender, the middle and hind ones with two or three spinous bristles near the apex of the under side; first joint of front tarsi as long as the following three together, on the middle and hind tarsi it is as long as the remaining joints, fourth joint of hind tarsi slightly shorter than the third, about one half as long as the fifth, the latter not spined on the lower side, claws large, those of the front tarsi equal in length, on the middle and hind tarsi one claw is nearly twice as long as the other. Wings hyaline, a large spot extends the length of the third vein, and from the costa nearly to the hind margin of the wing, also a narrow border at apex of wing, blackish; third vein reaches five sixths length of wing, apex of first vein slightly before middle of the third, fourth vein forks rather far before the small crossvein. Length 3 mm.....*nubifer*.*

9. Mesonotum polished, or at least not gray pruinose..... 10
 Mesonotum opaque, gray pruinose and with a transverse row of four brown pruinose spots near the middle and with another brown pruinose spot a short distance in front of each of the outer spots. Black, the base of the antennæ, stems of halteres and the legs, yellow, the coxæ, apices of first two pairs of femora and of their tibiæ, the hind femora and their tibiæ, also the apices of the joints of all the tarsi, dark brown, scutellum reddish brown. Pleura gray pruinose, abdomen polished. Femora rather slender, the front ones slightly thickened and spined on nearly the entire length of the under side, middle and hind femora bearing three or four spines near apex of the under side; first joint of tarsi longer than the following three, the last joint of hind tarsi spined on the under side, claws large. Wings hyaline, third vein reaches five sixths length of wing, apex of first slightly before middle of third, fourth forks slightly before the small crossvein. Length 4 mm.....*slossoni*.†
10. Abdomen black 12
 Abdomen chiefly yellow, tarsal claws equal..... 11
11. Blackish brown, the basal half of antennæ, the palpi, halteres, abdomen except first two segments, and the legs, yellow, the coxæ, greater part of hind femora, bases of middle and hind tibiæ and apices of last joint of tarsi, dark brown. Antennæ reaching slightly beyond base of abdomen. Mesonotum scabrous. Femora not spined, rather slender, the hind ones considerably thickened, first tarsal joint as long as the remaining joints together, none of the joints spined, claws rather large. Wings hyaline, third vein reaches five sixths length of wing, apex of first vein at middle of the third, fourth vein forks before the small crossvein. Length nearly 4 mm.....*magnus*.‡

* Jacksonville, Florida. A female specimen collected by Mrs. A. T. Slosson. Type No. 8357, U. S. National Museum.

† Mt. Washington, N. H. A female specimen, collected by Mrs. A. T. Slosson, for whom this fine species is named. Type No. 8358, U. S. National Museum.

‡ Brownsville, Texas. A female specimen collected in May by Mr. C. H. T. Townsend. Type No. 8359, U. S. National Museum.

- Yellow, the antennæ and palpi dark brown. Antennæ reaching slightly beyond base of abdomen. Mesonotum highly polished. Femora slender, not spined, first tarsal joint as long as the following three, last joint not spined, claws minute. Wings hyaline, third vein reaches two thirds length of wing, apex of first vein at middle of the third, fourth vein forks a short distance beyond the small crossvein. Length 8 mm.....*gilvus*.*
12. Hind and other tarsal claws equal or nearly equal in length..... 13
Hind tarsal claws very unequal in length. Black, the first antennal joint and base of the second, the halteres and legs, yellow, apices of femora, of tibiæ and of first three tarsal joints, also the whole of the last two joints dark brown. Antennæ reaching middle of abdomen, the second joint nearly twice as long as the first, the following joints at least twice as long as wide. Body highly polished, a white pruinose vitta above the coxæ. Femora slender, the first two pairs without spines, the hind ones with two spinous bristles near apex of under side: first joint of tarsi longer than the following three together, the last joint not spined, claws large, those of the first two pairs of tarsi equal in length. Wings hyaline, third vein reaches five sixths length of wing, apex of first near one third of the length of the third, fourth vein forks a short distance before the small crossvein. Length 3 mm.....*curriei*.†
13. Hind femora strongly bowed forward, hind tibiæ chiefly yellow. Black, the head reddish brown, the first joint of antennæ and bases of the following nine, the stems of the halteres and the legs, yellow, the coxæ, bases of last two pairs of femora and of their tibiæ, also the last two tarsal joints, brownish black. Antennæ reaches middle of abdomen, the second joint slightly longer than the first. Mesonotum scabrous, pleura and abdomen polished. Femora rather slender, the hind ones considerably thickened, front femora bearing a single spine near middle of the under side, the others without spines; first joint of tarsi longer than the three following together, last joint of hind tarsi spined on the basal half of the under side, claws large. Wings hyaline, third vein reaches six sevenths length of wing, apex of first vein near one third length of the third, fourth vein forks slightly before the small crossvein. Length 3 mm.....*scaber*.‡
Hind femora almost straight, their tibiæ black. Black, the halteres, front coxæ, trochanters, femora except their apices, and first three tarsal joints except their apices, yellow (front and middle tibiæ and their tarsi wanting). Body highly polished. Femora rather slender, not spined, first tarsal joint longer than the three following, last joint of hind tarsi spined on the under side, claws large. Wings hyaline, third vein reaches three fourths length of wing, apex of first

Biscayne Bay, Florida. Three female specimens collected by Mrs. A. T. Slosson. Type No. 8360, U. S. National Museum.

† Kaslo, British Columbia. A female specimen collected June 17 by Mr. R. P. Currie, for whom this fine species is named. Type No. 8361, U. S. National Museum.

‡ Frontera, Tabasco, Mexico. A female specimen collected February 22 by Mr. C. H. T. Townsend. Type No. 8362, U. S. National Museum.

- vein slightly before middle of the third, fourth forks a short distance before the small crossvein. Length 2.5 mm.....*caudellii*.*
14. Dorsum of thorax polished, not distinctly pruinose..... 15
Dorsum opaque, usually gray pruinose, femora and tarsi not spined..... 16
15. Antennal joints two to nine connate, forming a single complex joint which is equal in length to the two following joints together. Black, the scutellum reddish brown, legs yellowish brown, bases of tarsi yellow. Antennæ robust, nearly reaching base of abdomen, the tenth joint twice as long as wide. Femora rather robust, with bristly hairs but no spines on the under side, first joint of hind tarsi as long as the following three, the fourth noticeably shorter than the third, about one half as long as the fifth, tarsi not spined, empodia large. Wings hyaline, almost wholly covered with hairs, third vein nearly reaches two thirds length of wing, apex of first slightly beyond middle of the third, fourth forks a short distance beyond the small crossvein. Length 1.5 mm.....*fusicornis*. †
- Antennal joints two to nine strongly narrowed at each end, together longer than the following five joints. Black, the knobs of halteres whitish, legs yellowish brown, bases of tarsi yellow. Antennæ scarcely reaches base of wings, joints two to nine wider than long, the following four scarcely longer than wide, the last joint nearly twice as long as wide. Body quite thickly covered with yellow hairs. Femora rather slender, not spined, first joint of hind tarsi as long as the following two, the fifth only slightly longer than the fourth, not spined. Wings hyaline, wholly densely haired, third vein reaches middle of wing, apex of first at two thirds length of the third, lower fork of fourth vein obliterated on its basal half. Length .7 mm.....*monilicornis*. ‡
16. Wings wholly covered with hairs..... 17
Wings bare except toward the apex. Yellowish, the apical portion of antennæ, two rings before apex of hind femora, one near middle and the apices of hind tibiae, also narrow apices of joints of tarsi, brown. Antennæ nearly reaches apex of abdomen, joints three to nine considerably constricted toward their apices, slightly over twice as long as broad. First joint of hind tarsi as long as the following two, the fifth as long as the fourth and bearing a single long claw. Wings hyaline, a broad irregular brown crossband extends from apex of first vein to apex of lower fork of fifth vein where it is greatly narrowed; from this crossband a spur extends into the axillary cell and beyond its tip is a small brown spot; another spur extends toward base of second basal cell where it is enlarged and crosses the first basal cell; two other spurs extend outwardly in the second and third posterior cells, uniting with a large transverse brown spot; a slightly smaller brown spot at apex of third vein; third vein reaches

* Bear Lake, British Columbia. A female specimen collected July 20 by Mr. A. N. Caudell, for whom the species is named. Type No. 8363, U. S. National Museum.

† Biscayne Bay, Florida. A female specimen collected by Mrs. A. T. Slosson. Type No. 8364, U. S. National Museum.

‡ Kaslo, British Columbia. Two females collected June 17 by Mr. A. N. Caudell. Type No. 8365, U. S. National Museum.

four fifths length of wing, apex of first near one third length of the third, the fourth forks a short distance beyond the small crossvein. Length 1 mm.

maculipennis.*

17. Second joint of hind tarsi at most two thirds as long as the first.....18
 Second joint as long as the first. Black, the antennæ yellowish brown, halteres yellow, legs brown, the knees, a ring above middle and the apices of the hind tibiae yellow, narrow apices of the tarsal joints whitish. Antennæ reaches base of abdomen, joints two to nine slightly longer than wide, the twelfth twice as long as wide. Wings densely haired, grayish and with a large whitish spot near apex of first three posterior cells, nearly whole of fourth posterior cell whitish; third vein reaches middle of wing, apex of first near that of the third. Fourth joint of hind tarsi as long as the fifth, claws small, equal. Length 1 mm

cinclipes.†

18. First joint of hind tarsi slender, hind tibiae without a spine at apex..... 19
 First joint of hind tarsi swollen, hind tibiae with a black spine at apex of inner side. Black, the basal half of antennæ, mouth parts, scutellum, halteres and legs, yellow. Plumosity of antennæ yellowish. Mesonotum thinly gray pruinose and clothed with golden yellow hairs. Legs rather slender, very hairy, first joint of hind tarsi nearly as long as the following two, the fourth slightly longer than the fifth. Wings hyaline, wholly densely haired, third vein reaches middle of wing, apex of first near two thirds length of third. Length 1.5 mm.....*calcaratus*.‡

19. Mesonotum black, almost velvety, the gray pruinosity scarcely apparent. Black, a yellow humeral dot and the scutellum brownish yellow, knobs of halteres chiefly yellow, legs dull yellowish or brownish. Antennæ of female reaching beyond base of abdomen, joints two to nine slightly longer than wide, the tenth over twice as long as wide; in the male the plumosity is black, tipped with gray. Hairs of body chiefly black. Second joint of hind tarsi two thirds as long as the first, the fourth slightly shorter than the fifth. Wings hyaline, nearly covered with hairs, third vein reaching slightly beyond middle of wing, apex of first near two thirds length of the third. Length 1 to 1.5 mm.

tenebrosus.§

Mesonotum densely gray pruinose. Black, the halteres yellow, the antennæ and legs dull yellowish. Antennæ of female reaches beyond base of abdomen, joints two to nine slightly longer than broad, joint ten three times as long as broad; plumosity of male antennæ blackish and with gray tips. Hairs of body chiefly yellow. First joint of hind tarsi as long as the following two, the fifth slightly longer than the fourth. Wings hyaline, a small white spot

* Jacksonville, Florida. A female specimen collected by Mrs. A. T. Slosson. Type No. 8366, U. S. National Museum.

† Biscayne Bay, Florida. A female specimen collected by Mrs. A. T. Slosson. Type No. 8367, U. S. National Museum.

‡ Frontera, Tabasco, Mexico. A male specimen collected February 19, by Mr. C. H. T. Townsend. Type No. 8368, U. S. National Museum.

§ Eureka, Cal. Four males and three females collected May 22, 24 and June 3 by Mr. H. S. Barber. Type No. 8369, U. S. National Museum.

just beyond apex of third vein, the latter reaches two thirds length of wing, apex of first vein near four fifths length of the third, costal vein considerably widened near the apex. Length 1 mm.....*unicolor*.*

Tanyus miripes, new species.

Near *hirtipennis* and *pilosellus* but in these the fourth joint of the tarsi is slender and at least two thirds as long as the third, while the fifth is only slightly smaller than the fourth. Yellow, the antennæ, mouth parts, three vittæ on the mesonotum, the metanotum, and the front ends of the segments of the abdomen, brown. Plumosity of antennæ brown, the apices yellow. Body opaque, grayish, pruinose, the hairs yellowish white. Tarsi with rather long pubescence but not distinctly bearded, the front and hind ones slender and elongated, the middle ones rather robust, the last three joints rather short, the fourth about one half as long as the third, the fifth unusually small, wings densely haired, hyaline, a brown cloud on the small cross-vein, in certain lights an indistinct brownish cloud in outer half of anal cell and a crossband of the same color near three-fourths length of wing; first vein forked a short distance before the apex, crossvein at apex of second basal cell situated slightly beyond base of upper branch of fifth vein. Length 4.5 mm.

Eureka, Cal. A male specimen collected May 22 by Mr. H. S. Barber. Type No. 8371, U. S. National Museum.

Tanyus sinuosus, new species.

Near *johnsoni* and *bifasciatus*, but differing from both by the very sinuous second brown crossband of the wings. Yellow, varied with whitish, the legs wholly whitish, the mouth parts, and in the male the antennæ except the first joint, a spot in front of each wing, a pair of spots in front of the scutellum, the front ends of the abdominal segments and nearly the whole of the last two segments, brown, in the female with three brown vittæ on the mesonotum, the median one divided in the middle by a yellow line. Plumosity of antennæ gray basally and yellow distally, appearing wholly yellow in certain lights. Body opaque, hairs yellow and with several brown ones on the abdomen of the male. Tarsi slender, fourth joint much longer than the fifth, front tarsi of male bearded with rather long hairs. Wings densely covered with hairs, hyaline, a faint brownish crossband passes over the crossveins and is expanded in the anal cell; a broader brownish crossband begins on the costa just beyond the forking of the first vein and extends almost to the upper branch of the fifth vein, then turns towards the base of the wing for a short distance and then again changes its course and reaches the hind margin of the wing just before the apex of the lower fork of the fifth vein; the proximal edge of the upper portion of this crossband is nearly on a line with the distal edge of the lower portion; an indistinct brownish cloud on apex of fourth vein and of upper branch of the fifth; first vein forked toward its apex, crossvein at apex of second basal cell slightly beyond the forking of the fifth vein. Length 2 to 3 mm.

Center Harbor (Aug. 3, H. G. Dyar) and Franconia, N. H.

* Eureka and Fieldbrook, Cal. Two males and eight females collected May 22, 31, June 3, 5 and 6 by Mr. H. S. Barber. Type No. 8370, U. S. National Museum.

(Mrs. A. T. Slosson). Three males and two females. Type No. 8372, U. S. National Museum.

Tanypus nubifer, new species.

Distinguished by the spotted, bare wings. Yellow, the first antennal joint, palpi, three vittæ on the mesonotum, lower portion of thorax, the metathorax, and bases of abdominal segments, brown, the legs whitish. Plumosity of antennæ gray, but appearing yellowish in certain lights. Body opaque, gray pruinose. Tarsi slender, the fourth joint longer than the fifth, front tarsi bearing many long hairs. Wings bare, whitish hyaline, a brownish cloud on the small crossvein, two near middle of first posterior cell, one beyond middle of second posterior cell, one near apex of posterior branch of fifth vein and about four in the anal cell, some of the latter very faint; first vein forked before the apex, fifth vein forks a short distance beyond the crossvein. Length 3 mm.

Salt Lake, Utah. Two males collected June 26 by Mr. H. S. Barber. Type No. 8373, U. S. National Museum.

Tanypus heteropus, new species.

Black, the halteres light yellow. Plumosity of male antennæ yellowish brown. Thorax opaque, mesonotum with three blackish vittæ; hairs of abdomen whitish. Tarsi not bearded, the fourth joint short and dilated, shorter than the fifth. Wings hyaline, bare, first vein simple, the fifth forks a short distance before the crossvein. Length 3 to 4 mm.

Pullman, Washington (March 26 and April 9, R. W. Doane); Las Vegas Hot Springs, N. M. (March 21, T. D. A. Cockerell); Mt. Washington, N. H. (Mrs. A. T. Slosson). Nine males and one female. Type No. 8374, U. S. National Museum.

Tanypus tenebrosus, new species.

Near *pilosellus* but much larger, the body chiefly black, etc. Black, the antennæ of female except the first joint, the scutellum, sides of male abdomen, legs and halteres, yellow. Plumosity of male antennæ grayish brown, appearing partly whitish in certain lights. Tarsi slender, the front ones not bearded, the fourth joint longer than the fifth. Wings hyaline, densely covered with hairs, first vein simple, the fifth forks slightly before the crossvein. Abdomen of female spatulate, widest at the fifth and sixth joints. Length 3 to 4 mm.

Franconia, N. H. One male and two females collected by Mrs. A. T. Slosson. Type No. 8375, U. S. National Museum.

Chasmatonotus fascipennis, new species.

Black, the bases of antennæ, middle of pleura, base of venter, halteres, trochanters and bases of femora, yellow. Body polished. Wings brownish, the base broadly, a broad crossband just beyond forking of the fifth vein, and the very narrow apical margin of the wing, prolonged along the posterior margin to the median crossband, whitish hyaline, the crossband changing to yellowish in front of the third vein. Length 1.5 to 2 mm.

Kaslo Creek, British Columbia. Thirty-five specimens, collected June 17 and 18 by Messrs. R. P. Currie and A. N. Caudell. Type No. 8376, U. S. National Museum.

Chasmatonotus hyalinus, new species.

Yellow, the mesonotum yellowish brown and with a black dorsal vitta, abdomen dark brown, tarsi, tibiæ and femora except their bases, pale brown. Body polished. Wings grayish hyaline, somewhat smoky in front of the third vein. Length 1.5 mm.

Eureka, Cal. A male specimen collected May 24 by Mr. H. S. Barber. Type No. 8377, U. S. National Museum.

Family MYCETOPHILIDÆ.

Sciophila fuscipennis, new species.

Distinguished by the dark brown wings. Black, the femora, tibiæ and bases of the tarsi and of the halteres, yellow. Mesonotum polished, its hairs chiefly yellow, the marginal bristles mostly brown, hairs of abdomen chiefly brown. First joint of front tarsi about two thirds as long as the tibiæ. Wings dark brown, auxiliary vein terminates in the first near middle of the marginal cell, petiole of second posterior cell subequal in length to the small crossvein, fifth vein forks far before the small crossvein. Length 6 mm.

Kaslo, British Columbia. Two females collected June 1 and 10 by Messrs. H. G. Dyar and R. P. Currie. Type No. 8378, U. S. National Museum.

Sciophila simplex, new species.

Near *calcarata* but the middle coxæ are without spines, etc. Black, the mouth parts, bases of antennæ, a humeral spot, base of venter, halteres, coxæ, femora, tibiæ, bases of tarsi, and hind borders of abdominal segments of the female, yellow, hind coxæ usually marked with brown. Antennæ elongate, the joints beyond the second over twice as long as wide. Body opaque, densely gray pruinose, the hairs black. First joint of front tarsi slightly longer than the tibiæ. Wings hyaline, auxiliary vein ends in costa near or beyond middle of marginal cell, petiole of second posterior cell about six times as long as the small crossvein, fifth vein forks slightly before the small crossvein. Length 4 to 6 mm.

Antoine Mine, McGuigan (July 26, Anderson), London Hill Mine, Bear Lake (July 21, 28 and 29, R. P. Currie and A. N. Caudell), and Kokanee Mt. (August 11, R. P. Currie), British Columbia. Ten males and one female. Type No. 8379, U. S. National Museum.

Sciophila brevivitta, new species.

Near *obliqua*, but in that species the median brown vitta on the mesonotum extends to the scutellum, the petiole of the second posterior cell is as long as that cell, etc. Yellow, the upper part of the head, the antennæ beyond the fourth joint, three vittæ on the mesonotum, three spots on the pleura, the lower part of the metanotum,

broad hind margins of the first five abdominal segments and the whole of the following two, also the apices of the tarsi, black. Body polished, the hairs black; median vitta of mesonotum paler than the others, not extending on the posterior fourth of the mesonotum, divided in the middle by a yellow line; scutellum chiefly brownish. First joint of front tarsi slightly shorter than the tibiæ. Wings hyaline, auxiliary vein ends in the costa near or beyond middle of marginal cell, petiole of second posterior cell less than half as long as that cell, fifth vein forks before the small crossvein. Length 4 mm.

Kaslo, British Columbia. Three males collected May 30, June 12 and 20 by Messrs. H. G. Dyar and R. P. Currie. Type No. 8380, U. S. National Museum.

Anaclinia coxalis, new species.

Black, the humeri, femora, tibiæ, inner side and narrow apices of front coxæ, and the halteres, yellow. Body somewhat polished, thinly gray pruinose, the hairs yellowish. First joint of front tarsi longer than the tibiæ. Wings hyaline, venation normal. Length 5 mm.

London Hill Mine, Bear Lake (July 21, R. P. Currie, July 29, A. N. Caudell), and Kaslo (June 26, H. G. Dyar), British Columbia. Type No. 8381, U. S. National Museum.

Lejomya hyalina, new species.*

Yellow, the antennæ except at base, a spot on the front, three spots on the pleura, middle of metanotum, hind margins of abdominal segments, also apices of tarsi, black. Body polished, the short hairs yellow, the longer hairs and bristles of mesonotum and scutellum chiefly brown. First joint of front tarsi as long as the tibiæ. Wings hyaline, upper branch of fifth vein usually interrupted at the base. Length 4 mm.

Las Vegas Hot Springs, N. M. Four specimens collected August 11 to 14 by Mr. H. S. Barber. Type No. 8382, U. S. National Museum.

Mycetophila vitrea, new species.

Distinguished by the hyaline wings in connection with the presence of long bristles on the inner side of the middle tibiæ. Black, the face, mouth parts, bases of antennæ, halteres and legs, yellow, apices of tarsi brown. Body polished, the hairs yellowish, the bristles black. Lateral bristles of front tibiæ shorter than greatest diameter of the tibiæ, many of those on the other tibiæ about twice this diameter, middle tibiæ bearing a very long and a short bristle on the inner side, hind tibiæ devoid of bristles on the inner side. Wings hyaline, tinged with yellowish and gray along the costa, auxiliary vein obliterated apically, fifth vein forks opposite the small crossvein. Length 2.5 mm.

* *Lejomya* Rondani, 1856, = *Lejosoma* Rondani, 1856, = *Glaphyoptera* Winertz, 1863, preoccupied, = *Neoglaphyoptera* Osten Sacken, 1878.

Delaware Water Gap, N. J. (July 12, C. W. Johnson), and Kaslo, British Columbia (June 11, H. G. Dyar). Two specimens. Type No. 8383, U. S. National Museum.

***Ceroptatus terminalis*, new species.**

Near *clausus*, but the wings are distinctly marked with dark gray toward their apices, the united portion of the third and fourth veins is longer than the succeeding section of the fourth vein, etc. Yellow, the antennæ, an ocellar spot, a median pair of lines on the mesonotum which diverge strongly anteriorly and are united posteriorly, the knobs of the halteres and apices of the tarsi, brown. Antennæ about as long as the thorax, the last joint slightly longer than wide, the others wider than long. Wings hyaline, tinged with yellow along the costa, the apices broadly and hind margin from apex of axillary cell more narrowly bordered with dark gray, which is considerably prolonged along the posterior branch of the fifth vein, a lighter gray spot in apex of the first and of the second posterior cell, the gray color extends along the third vein to a point a short distance basad its upper branch, the latter terminates in the first vein a considerable distance before the apex, auxiliary crossvein slightly beyond the humeral, apex of auxiliary vein beyond the union of the third and fourth. Length 10 mm.

Kaslo, British Columbia. A male specimen collected July 16 by Mr. R. P. Currie. Type No. 8384, U. S. National Museum.

**A CHIRONOMID INHABITANT OF SARRACENIA
PURPUREA, METRIOCEMUS KNABI COQ.**

BY FREDERICK KNAB,

URBANA, ILL.

(PLATE VI.)

During the course of a season's work upon culicid larvæ the writer examined the liquid contents of many leaves of the pitcher-plant, *Sarracenia purpurea*. It was found that the water in these leaves contained, besides larvæ and pupæ of the mosquito *Wyeomyia smithii*, two other forms of dipterous larvæ. One of these was a large maggot of the brachycerous type, perhaps the larva of Riley's *Sarcophaga sarracenie*, a species which he bred from the leaf contents of *Sarracenia variolaris*.* The other was a small, pale chironomid larva.

The first material was collected on July 30, 1903, on the boggy shores of a pond a few miles from Westfield, Massachusetts. Of the pitcher-plant leaves examined none contained more than one of the

*C. V. Riley: Descriptions and natural history of two insects which brave the dangers of *Sarracenia variolaris*. (Trans. Acad. Sci., St. Louis, 1874, v, 3, p. 235-240).